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PATENT
19603/461

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:	Barany et al.)	Examiner:
)	To be Assigned
Serial No.:	To be Assigned)	
)	Art Unit:
Filed	: Herewith)	To be Assigned
)	
For	: DETECTION OF NUCLEIC ACID)	
	SEQUENCE DIFFERENCES USING THE)	
	LIGASE DETECTION REACTION WITH)	
	ADDRESSABLE ARRAYS)	

INFORMATION DISCLOSURE STATEMENT

Assistant Commissioner for Patents
Washington, D.C. 20231
Box: Patent Application

Dear Sir:

Pursuant to 37 CFR §§ 1.97-1.98, Applicants hereby bring to the attention of the United States Patent and Trademark Office, the enclosed references listed on the attached PTO-1449 form.


Respectfully submitted,

Dated: February 4, 1997

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By:

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U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT  (use several sheets if necessary)	ATTY. DOCKET NO.	SERIAL NO.
	19603/461	0 /
	APPLICANT	
	Barany et al.	
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U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	1	5,143,854	9/1/1992	Pirrung et al.			
	2	5,202,231	4/13/1993	Drmanac et al.			
	3	5,258,506	11/2/1993	Urdea et al.			
	4	5,288,468	2/22/1994	Church et al.			
	5	5,371,241	12/6/1994	Brush et al.			
	6	5,424,186	6/13/1995	Fodor et al.			
	7	5,278,298	1/11/1994	Chakraborty et al.			

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		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION IF APPROPRIATE
	8	WO 89/10977 ✓	16-NOV-89	Europe			
	9	WO 90/15070 ✓	13-DEC-90	Europe			
	10	WO 92/10588 ✓	25-JUN-92	Europe			
	11	WO 92/16655 ✓	1-OCT-92	PCT			
	12	EP 0 601 714 A1 ✓	15-JUN-94	Europe			
	13	WO 93/17126 ✓	2-SEPT-93	Europe			

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)

	14	Day et al., "Detection of Steroid 21-Hydroxylase Alleles Using Gene-Specific PCR and a Multiplexed Ligation Detection Reaction," <i>Genomics</i> , 29:152-162 (1995)
	15	Grossman et al., "High-Density Multiplex Detection of Nucleic Acid Sequences: Oligonucleotide Ligation Assay and Sequence-Coded Separation," <i>Nucleic Acids Research</i> , 22(21):4527-4534(1994)
	16	Jin et al., "Alternating Current Impedance Characterization of the Structure of Alkylsiloxane Self-Assembled Monolayers on Silicon," <i>Langmuir</i> , 10:2662-2671 (1994)
	17	Cheng et al., "In Situ Attenuated Total Reflectance Fourier Transform Infrared Spectroscopy of Carboxylate-Bearing, Siloxane-Anchored, Self-Assembled Monolayers: A Study of Carboxylate Reactivity and Acid-Base Properties," <i>Langmuir</i> , 11:1190-1195 (1995)
	18	Kim et al., "Polymeric Self-Assembled Monolayers. 2. Synthesis and Characterization of Self-Assembled Polydiacetylene Mono- and Multilayers," <i>J. Am. Chem. Soc.</i> , 117:3963-3967 (1995)
EXAMINER		DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 6 9; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use several sheets if necessary) (PTO-1449)	ATTY. DOCKET NO. 19603/461	SERIAL NO. 0 /
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	FILING DATE Herewith	GROUP To be Assigned

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	19	5,290,925	3/1/1994	Fino			
	20	5,324,633	6/28/1994	Fodor et al.			
	21	5,352,582	10/4/1994	Lichtenwalter et al.			
	22	5,405,783	4/11/1995	Pirrung et al.			
	23	5,470,705	11/28/1995	Grossman et al.			

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		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION IF APPRO- PRIATE
	24	WO 93/20236	14-OCT-93	Europe			
	25	WO 94/17210	4-AUG-94	Europe			
	26	WO 94/17206	4-AUG-94	Europe			
	27	WO 94/11530	26-MAY-94	Europe			
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	29	Lauer et al., "Cloning, Nucleotide Sequence, and Engineered Expression of <i>Thermus thermophilus</i> DNA Ligase, a Homolog of <i>Escherichia coli</i> DNA Ligase," <i>Journal of Bacteriology</i> , 173(16):5047-5053 (1991)
	30	Barany et al., "Cloning, Overexpression and Nucleotide Sequence of a Thermostable DNA Ligase-Encoding Gene," <i>Gene</i> , 109:1-11 (1991)
	31	Jou et al., "Deletion Detection in the Dystrophin Gene by Multiplex Gap Ligase Chain Reaction and Immunochromatographic Strip Technology, <i>Human Mutation</i> , 5:86-93 (1995)
	32	Chan et al., "Polymeric Self-Assembled Monolayers. 3. Pattern Transfer by Use of Photolithography, Electrochemical Methods, and an Ultrathin, Self-Assembled Diacetylenic Resist," <i>J. Am. Chem. Soc.</i> , 117:5875-5976 (1995)
	33	Munkholm et al., "Polymer Modification of Fiber Optic Chemical Sensors as a Method of Enhancing Fluorescence Signal for pH Measurement," <i>Anal. Chem.</i> 58:1427-1430 (1986)
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		35	Graham et al., "Gene Probe Assays on a Fibre-Optic Evanescent Wave Biosensor," Biosensors & Bioelectronics, 7:487-493 (1992)
		36	Chetverin et al., "Sequencing of Pools of Nucleic Acids on Oligonucleotide Arrays," BioSystems, 30:215-231 (1993)
		37	Pease et al., "Light-Generated Oligonucleotide Arrays for Rapid DNA Sequence Analysis," Proc. Natl. Acad. Sci. USA, 91:5022-5026 (1994)
		38	Beattie et al., "Advances in Genosensor Research," Clin. Chem., 41(5) 700-706 (1995)
		39	Bains, W., "Mixed Hybridization and Conventional Strategies for DNA Sequencing," Gata, 10(3-4):84-94 (1993)
		40	Kuznetsova et al., "DNA Sequencing by Hybridization with Oligonucleotides Immobilized in a Gel," Mol. Biol. (Mosk) (Russia), 28(2):290-299
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		41	✓	Lysov et al., "Measurement of Distances Between DNA Segments Increases the Efficiency of Sequencing by Hybridization with Oligonucleotide Matrix," <u>Molecular Biology</u> , 28(3):433-436 (1994)
		42	✓	Livshits et al., "Dissociation of Duplexes Formed by Hybridization of DNA with Gel-Immobilized Oligonucleotides," <u>Journal of Biomolecular Structure & Dynamics</u> , 11(4):783-812 (1994)
		43	✓	Davis et al., "Quantitative Detection of Hepatitis C Virus RNA With a Solid-phase Signal Amplification Method: Definition of Optimal Conditions for Specimen Collection and Clinical Application in Interferon-treated Patients," <u>Hepatology</u> , 19(6):1337-1341 (1994)
		44	✓	Urdea, M.S., "Synthesis and Characterization of Branched DNA (bDNA) for the Direct and Quantitative Detection of CMV, HBV, HCV, and HIV," <u>Clinical Chemistry</u> , 39(4):725-726 (1993)
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